

BUILDING DIVISION

PLAN CHECK NOTE

From: Building Plan Check

PCN #8

Previous Version: 10-11-2007

Revised Date: 7-2-2008

Subject: Use of sprinkler to mitigate required fire ratings up to 1-hr

Code reference:

2007 California Building Code

Purpose:

Under the 2001 CBC, and earlier, which were based on the UBC printed by ICBO, the City of San Jose has previously allowed, on a case by case basis with through the application of alternate methods and materials, the use of sprinkler systems to mitigate required fire resistive construction. With the adoption of the 2007 CBC, the basis of the building codes moves to the IBC printed by ICC. The City of San Jose has determined that the past practice is not compatible with the increases allowed by the ICC when compared to the UBC. Therefore, the City of San Jose Building and Fire Departments will limit the situations where an application for alternate method of construction will be considered as shown in the following table.

Findings:

		Approvability
1.	Water curtain in lieu of a required fire rated wall, exterior or interior	None
2.	Water curtain in lieu of a required protected opening	None
3	Water impinged wall on an exterior surface where protection of opening is required due to: a. distance to property line b. proximity to unprotected openings of a stairway c. Either (a) or (b) for existing portions of a building built under the UBC where there is a conflict with the IBC	None* None Case by case

4.	Water impinged wall on an interior surface where protection of openings is required <ol style="list-style-type: none">CorridorFire wall (ASW)Fire barrier (Occupancy Separation)Fire partition (Tenant separation)Smoke barrierSmoke partition	Case by case None None Case by case Case by case None
5.	Other	Case by case

* The exception to CBC 704.12 does specifically allow the use of a water impinged wall on exterior openings so an AMMC is not required. However, per sections 704.8.1 and equation 7-2, there is no need for protected openings in buildings protected by an NFPA 13 system. Opening area larger than that permitted by table 704.8 will not be allowed with additional protection. As a result, this exception would only be applicable to existing buildings protected by a 13-R system, or only partially sprinklered, which are no longer allowed. A 13-D system does not have the capacity to protect windows.

For the purposes of this subject the following terms are defined:

- Water Curtain:** The use of many close spaced sprinkler heads, typically quick response, to provide a curtain of water.
- Water Impinged Wall (WIW):** The use of a sprinkler head to wet a surface, such as a glass. If approved for use, shall be by the Fire Department standards and restrictions.

Additionally, sprinklers cannot be used to mitigate any required rating greater than 1-hr.